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Immersive, mindfulness-based Virtual Reality (VR) to improve aggressive behaviors in an Inpatient setting: Pilot data
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Aggressive behavior in schizophrenia poses severe health and social consequences for which Mindfulness-based interventions (MBI) through digital applications can be used as an adjunctive treatment. MBIs utilizing immersive Virtual reality (VR) may occlude patients view of the real world, which may assist in achieving a state of mindfulness more easily. This study explores the efficacy and feasibility of two digital mindfulness interventions in inpatients with schizophrenia and aggression. This is a randomized-controlled trial comparing a self-guided auditory mindfulness app ‘Headspace’ (HS-MM) to self-guided VR mindfulness ‘TRIPP VR’ presented as geometric images and fractals. The Excitement Component of the Positive and Negative Syndrome Scale (PANSS-EC), Oxford Mood Scale (OMS), State Trait Anxiety Index (STAI), number of aggressive incidents and PRNs were collected at baseline and week 6. The Mobile Application Rating Scale (MARS) was completed. 28 participants (HS-MM n = 13, TRIPP-VR n = 15) were enrolled. Repeated measures ANOVA found significant decrease in PANSS-EC for TRIPP-VR (baseline mean = 9.73 (±4.06); endpoint = 7.27 (±1.62), p = .009) with effect-size Cohen’s d = 0.80, and a decrease in PANSS Total (baseline mean = 73.60 (±13.84); endpoint = 63.33 (±13.00), p = 0.005) compared to HS-MM. A significant decrease was observed in number of aggressive episodes for TRIPP-VR (baseline mean = 4.09 (±4.75); endpoint = 3.11 (±4.04), p=0.023) only. Participants reported greater acceptability for TRIPP-VR (MARS (p < 0.05)) than HS-MM. Preliminary results suggest TRIPP-VR shows significant improvements in aggression over HS-MM. A fully powered double-blind randomized-controlled trial is underway.